



Spring 2011 Meeting

March 8-10, 2011



Seed Availability and Collection Challenges



Reclamation

Seed Industry is Relatively New

- s Dust Bowl days of the 1950s
- s Pioneering efforts of the Soil Conservation Service (today Natural Resource Conservation Service) and the Great Basin Experimental Station
- s Surface Mining and Reclamation Act of 1977
- s Federal Highway Act of 1987

Reclamation

Seed Industry is Relatively New (cont)

- s Conservation Reserve Program of the 1980s and 1990s
- s President Clinton edict in 1994 directing federal agencies “when practical, the use of local native plant species will be used for land reclamation”
- s Use of native plant materials by U.S. Forest Service and Bureau of Land Management for fire reclamation and cheatgrass control and state DOT’s for roadside reclamation

How Does the Seed Industry Meet the Growing Demand for Native Plant Materials?

- s Successful prediction of what the demand will be
- s Looking at past history/ usage



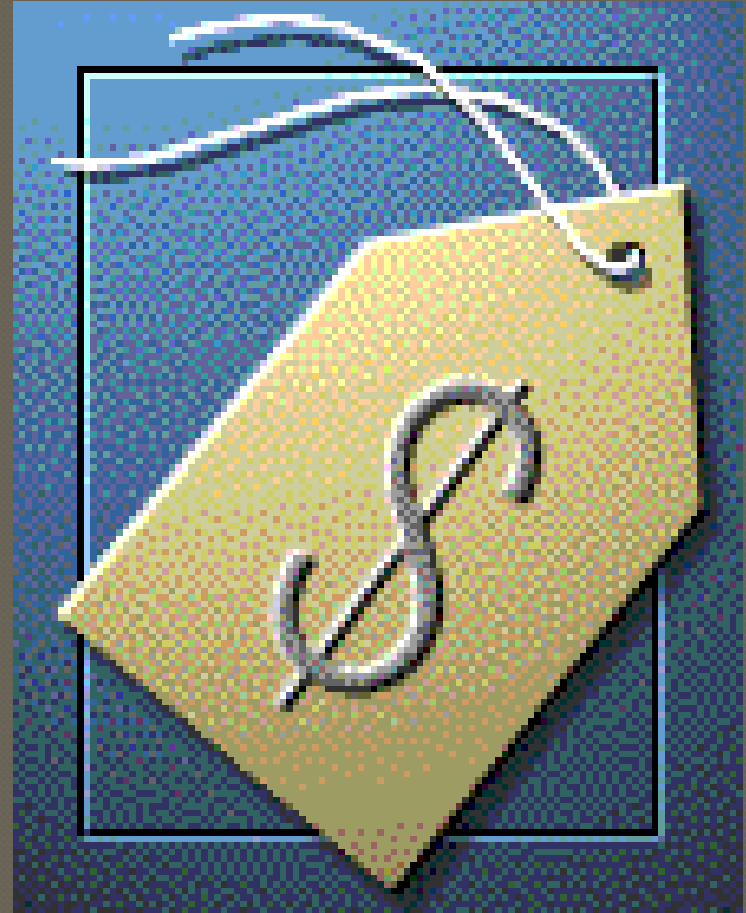
Why might the seed industry not have the seed that reclamation managers are requesting (Availability)?

- s Crop failure (weather, insect predation, disease)
- s Unusual increase in demand
- s Requests for materials the reclamation industry has not typically needed or wanted in the past



Cost of Native Seed Species

- s Hand harvested seed from wild collections is the most expensive seed
- s Field produced seed is less expensive



- S Farm cultivated
- S Machine harvested
- S Much research resulting in many improved varieties with broad adaptations



Generally, grass species are the easiest to acquire and accumulate and consequently less expensive than forb and shrub species. The exceptions are species such as needle and thread grass or inland salt which must be hand collected in the wild and can be quite expensive to process.



Although many forbs or wildflowers are also field produced, they are typically more expensive because of difficulties associated with propagation, weed control and harvest. However, most are still hand collected from native stands.

**Woody plants
(shrubs & trees)
are generally
the most
expensive
because
they must
be hand
collected
from the wild.**



Seed Collection



Individuals must be familiar with pieces and plant communities

Must be familiar with the phenology of the species you are collecting

Must be a hard worker with a strong back

Challenges of Seed Collection

- s Must find stands that are large enough to be worth harvesting
- s Must obtain permission/ permits to collect seed
- s Must determine when to harvest the seed
- s Must organize crews to harvest



Challenges of Seed Collection

- s Once collected, seed must be dried
- s Must be cognizant of weather patterns and events
- s Transported to processing facilities for cleaning
- s Once thoroughly cleaned, seed is sent to a certified seed testing laboratory to be tested for purity and germination

Approaches to Specifying Native Seed for Reclamation Projects

- s Species from similar ecological areas regardless of geographic distance

(allows greater flexibility in providing large quantities of seed at less cost)



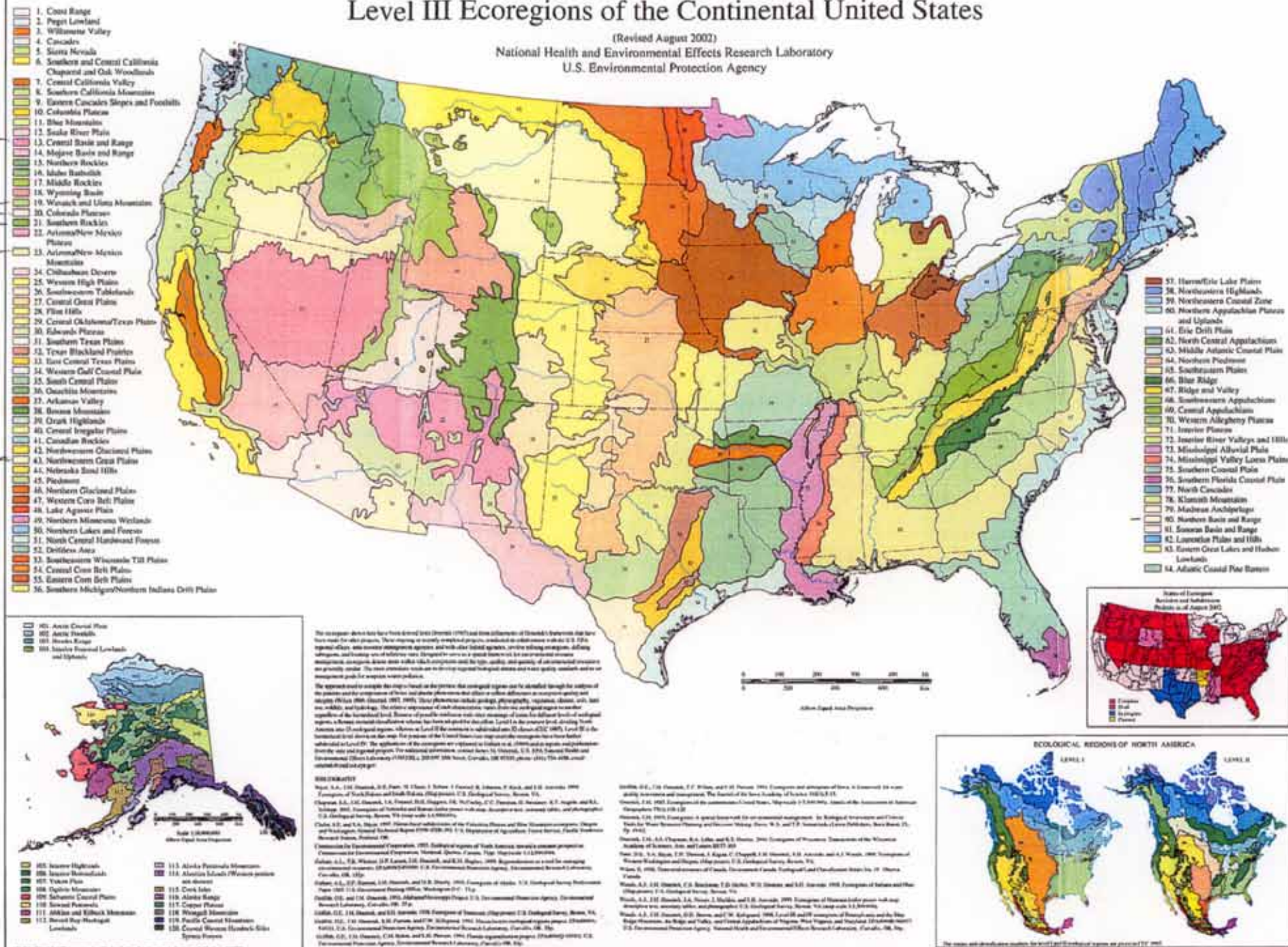
Approaches to Specifying Native Seed for Reclamation Projects

- s Using species that originate from a narrow geographic proximity

(restricts flexibility and less opportunity to provide sizable quantities of seed. More expensive and good planning needed).

(Revised August 2002)
National Health and Environmental Effects Research Laboratory
U.S. Environmental Protection Agency

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Summary

- s The seed industry is relatively new and continues to strive to meet the growing demands of providing seed for large and small reclamation projects
- s Many improved varieties of native grasses are available in large quantities for roadside reclamation projects

Summary (continued)

- s Locally collected shrubs are easier to find and may be financially justified when compared to site collected grasses and forbs
- s It is imperative to plant seed that is adapted to the area, matching the ecotype that is being planted with ecotype from which the seed comes

The seed industry
is in the business of
providing you
with products
that you request
whether
improved
varieties or
localized
collections





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